/5 cont./

177 244 early as 1560 Alvarez de Almada speaks of the abundant harvests of mantiga eaten fresh by the Mandingue /Mandingo/. In 1840 a Paris chemist, Rousseau, discovered the wealth of oil in the groundnut. In 1841 the brig "Zénith" transported 70 metric tons of nuts to Rouen. Protêt and Faidherbe encouraged this crop, which, in the framework of the colonial economic system, progressed rapidly from the coast toward the interior, thanks to the possibilities of the natural environment.

132 From the Senegal River in the north to the Casamance in the south, the climate of the country changes by successive transitions from Sahelian characteristics to Sudanese aspects. A long dry season of nine months in the north, shorter in the south, from October or December to May-June, contrasts with a "winter season" of three to five months, depending on the region. The frequency and the importance of the precipitations increase from north to south. They go from 350 millimeters in the region of Louga to 1,200 millimeters in that of Ziguinchor. Whereas the coast is moistened by the humid trade wind, the Ferlo to the east is like a desert. These conditions are nearly /6/ ideal for a 244 plant whose vegetative cycle is short -- about 120 days -- and which germinates easily in a slightly moistened soil, develops under heavy rains, and bears fruit best during the dry days that follow.

● 134 244 The soil conditions also seem to be wholly favorable. The plant is not very demanding with respect to fertility; essentially it requires a light soil, because the fructification is underground. The silico-argillaceous soils of the center of Senegal (the dek of the Ouoloff /Wolof/) and the sandy soils of the north (the dior of the Ouoloff) suit the groundnut perfectly.

496 244 311 The expansion of the area of cultivation, from the coast and the estuaries toward the interior, has been led by the railroads. The Dakar--Saint-Louis railroad, built in 1885, explains the essential role of Cayor in groundnut production at the beginning of the century, since it was along the Dakar-Niger line, achieved in 1888, that the groundnut front progressed toward the east. Today this front, which in the south has broken into the

22: Winterbotham et al. K-4 (no date) 1944 MS37 Senegal MS 37

most striking topography. In spite of this, there are few wide horizons, for much of the surface is covered with high bush. [133] [137]

The Coastal Belt

The Cape Verde peninsula protects the south of the coast from the Canary current and there is a marked contrast between the smooth sandy shoreline to its north and the muddy estuaries to its south. From St. Louis to Dakar no rivers reach the sea. Behind the dunes which back the coast is a depression into which, baulked of their normal goal, many small seasonal streams empty themselves. This depression is marshy during and shortly after the rains, and at certain places shallow lakes persist. A wider and more permanent area of swamps lies east of St. Louis. It is formed by distributaries of the Senegal and replenished each year by its flood. Lake Guiers is a large perennial sheet of water at the eastern edge of this marshland.

The Interior Plain

North and east of the railways and south and west of the great curve of the Senegal there is a broad Tertiary plain. This is, in effect, a southward extension of the Sahara, and, like that of Mauritania, its surface is formed of low fixed dunes and shallow clay depressions. The general direction of these features is north-east and south-west. Immediately west of Thiès is a prominent line of hills running north and south. It is formed by an outcrop of Lower Eocene strata dipping eastward, and it is covered by the Forest of Thiès. For most of the year the rather friable top soil is dry, but the depressions become bands of swamp for a few months. Across this general alinement of relief two major valleys run from east to west. One is that of the Ferlo, which flows into Lake Guiers, and the other is that of the Nielloumolé and the Maouré, which are the upper sections of the Sine. The general pattern is edged by the flood plain of the Senegal and its subsidiary channels. The longest of these latter breaks off just below Diorbivol and does not rejoin the main stream until below Podor. It encloses the Île à Morfil, which averages 8 miles wide and is over 300 miles long. Most of the plain is covered with thornland or poor grass-woodland, but much of the land in the extreme south-west is highly cultivated. [137] [134] [137] [311]

The South

In the Casamance Territory relief is slightly more varied. The valleys are flat and annually flooded, but the country between rises

/94 cont./

133 On the right bank of the Saloum, these valleys form a more or less continuous string of ponds during the winter.

One of these valleys bears the name of Bao-Bolon; it is several kilometers wide and is the outlet of the region of Birkelane-Kaffrine. The natives report that 50 years ago [505] cutters from Gambia were able to go up this affluent as far as a passage between Nioro-Rip and Médina, about 20 kilometers to the north upstream from the river.

133 134 In the lower valley of the Saloum, along the marigots, one finds the "tannes," marshy depressions covered with water during the winter, but where, during the dry season, the mud is covered with a layer of sand, which, with saline efflorescences, hardens to the point of constituting a rather firm soil. Here one finds a composite of lime and salt; this is the "poto-poto," feared by travelers, motorists, and pedestrians, who can very easily be swallowed up by it. Between Sangomar and the Gambia, the marine affluents of the Diomboss and the Bandiala and the marigots of Dionouar, Toubacouta, Sokone, Messira, and Djinnack are disclosed.

The upper valley of the Saloum, oriented from east to west, presents less sandy soil with outcrops of laterite. Some undulations of the terrain are more pronounced toward the west, in the region of Pakalla Mandack and Niani-Ouli, where the ravines are at times very deep. The plain and the bottom of [137] the depressions are wooded or covered with a very flourishing vegetation.

The northern part of the circle, which is traversed by the valley of the Sine, is made up of sandy soil, very propitious for the cultivation of groundnuts. This valley, 133 formerly watered by streams, has been entirely overrun by the /95/ sea. This drying up of the region is moreover characteristic of almost all of Senegal. One sees it there in the diminution of the volume of certain rivers, a diminution that sometimes, as in the Cayor, Ferlo, Baol, Sine, and Saloum, extends to the total disappearance of the water.

Moreover, one notes that, as a result of the evaporation of the waters of the Saloum, the salt content of these waters is greater than that of the ocean.

/95 cont./

134 From the geological viewpoint, the soil of Sine-Saloum is silico-argillaceous, except for the edge of the sea formed by dunes of white sand. Sand predominates in the north. Everywhere else it is mixed with red clay.

135 The subsoil covers ferruginous rock, alluvial laterite, undoubtedly coming from the decomposition of granitic rock; this is the ferruginous fossil layer, following the expression of Henri Hubert, which covers the limestone and marl of the Eocene period.

Numerous outcrops of laterite appear at Kaffrine, Koungheul, in Mandack, and in Rip.

The digging of wells tells us something about the composition of the terrain forming the subsoil in this region. Under a more or less thick layer of sand, one finds laterite, then chalk or soft limestone, and finally hard limestone.

A highly varied and fossilized marine fauna has been discovered in the soft limestone at a depth of about 35, 40, 45 meters.

173 b) Historical survey. The history of the inhabitants consists of more or less confused oral traditions. No account has been handed down in writing. We can therefore only rely on narrations, sometimes contradictory, which the natives hand down orally.

The representatives of the conquering or conquered races have their own versions. It is difficult for the European to tell which part is truth or falsehood. Our penetration into
175 this part of Senegal is /96/ recent. It happened barely 80
438 years ago. At first it was fragmentary; the region was traversed by the merchant or trader at the time of the slave trade; the latter quickly returned to his base from the Petite Côte or from Gorée, the turbulence of the tribes not permitting him to stay in the region or to settle down there. A number of business establishments were founded at the end of the eighteenth century and at the beginning of the nineteenth, but their existence was ephemeral and in any case precarious.
175 The intemal struggles between the tribes gave the region little

/100 cont./

SR 105 [143] master. The order of succession to the throne was governed by immutable rules. The Grand Diaraff chose the Bour, while being bound to take him from the princely caste of the Guelwars and from the maternal line. The title of Queen, or Linguère, was borne, not by the wife of the Bour, but by his mother.

S 132 Climate. Soil. The climate of Sine-Saloum is very hot and dry. It is painful for the European. The thermometer never drops below 12° centigrade at night. During the day it sometimes climbs up to 45° and even 48°. The thermic average is from 28° to 30°. Two seasons sharply contrast: the dry season, which lasts from November to June and during which the east wind, searing and drying, blows; the rainy season or winter, which runs from June to November, an unhealthy period when swamp fever prevails. The atmospheric precipitation is plentiful. It drops on the average one to 1.20 meters of water. This is very little compared to the figures for Lower Guinea (four to five meters); it is less than in Casamance where the annual rainfall is two meters. But the rate of rainfall here is higher than in all the rest of Senegal. At Dakar and Saint-Louis, for example, from 0.45 to 0.55 meters of water falls.

S 133 312 [134] The soil is generally permeable. In certain places drinking water is reached at a shallow depth. By contrast, in other places it is necessary to dig very deep wells. At Fatick, the surface layer of fresh water is at two and a half or three meters. At Kaolack, it is necessary to go more than ten meters, although in some years water has been found at six meters. At Gossas, a deprived area, it has been necessary to dig as far as 90 meters; at Guinguinéo, /map appears here/ /101/ wells are 60 meters deep. It is fitting to mention, as a curious fact, the presence of fresh water on the edge of the marigots of salt water. For example, at Dangana (Sine), the well of the encampment, which is dug one meter from the edge of the river bank and to a depth of 1.5 meters, contains potable water which the inhabitants use.

S 134 The soil is not very rich in humus. It is sandy in the north and silico-argillaceous in the other areas, but very nearly

/101 cont./

134 everywhere the terrain is suitable for the cultivation of groundnuts, except in Bas-Saloum.

137 A very dense, thorny, and shrubby vegetation grows in the sandy soil. This is the region of the cades (Acacia albida). In the silico-argillaceous lands of the south and east, the vegetation is more vigorous; one still finds there at the present time interesting forest stocks, vestiges of the great forests of former times. These groves are on the way to disappearing as a result of the abuses of clearing and of the unfortunately too frequent fires. The forests of Patako, between Messira and Coular, and of Dasilamé, between Nioro and Médina, which contain many hardwoods, Gambian mahogany, vène, and hire, are to be protected.

II. Administrative Organization

634 Territorial divisions. The two large native commands of Sine and Saloum have been eliminated, and the title of Bour, which was only honorific in nature, has ceased to exist legally.

632 634 The circle is divided into three major administrative subdivisions:

1st, Subdivision of Sine, chief town Fatick;

2nd, Subdivision of Bas-Saloum, with Foundiougne as the chief town;

3rd, Subdivision of Saloum Oriental, chief town Kaolack.

An administrator is at the head of the circle, and each subdivision is commanded by an official of the corps of administrators or of the corps of civil services.

632 Divided among these three subdivisions are 19 cantons or native commands, each /102/ of which is headed by a canton chief.

The subdivision of Saloum Oriental has 11 cantons:

Kaolack-Laghem,
Kahone,
Diohoul-Gandiaye,
Gossas,
Niom-Rip,
Nioro-Rip,

/117/

Total Traffic for the Circle
(Kaolack, Foundiougne, Saboya)

505

Periods	Tonnage Unloaded	Tonnage Loaded	Tonnage Unloaded and Loaded
1909-1913	12,076 t.	49,189 t.	61, 265 t.
1914-1918	12,333	70,767	83,100
1919-1923	17,438	99,803	17,241
1924	42,288	139,712	182,000
1925	64,668	182,277	246,945
1926	71,964	209,446	281,410
1927	71,237	200,393	271,630

433 The tonnage decreased by about 10,000 tons in 1927,
505 but this was solely due to the fact that the groundnut harvest was slightly deficient as a consequence of an overabundance of rain. On the whole, one can say that there has been constant and uninterrupted progress since the pre-war period. The announcement of this figure indicates the flourishing situation of the region of Sine-Saloum.

433 In 1927 the total value of imports and exports for the
439 circle amounted to 454 million francs, 330 million of which were for Kaolack. With what left by way of the small customs stations along the border with Gambia, one can acknowledge that the value of general commerce in 1927 was almost 500 million, or almost a third of the total commerce of the colony of Senegal, which in 1927 amounted to 1 billion 562 million.

These figures speak for themselves.

Agricultural Resources of the Region: Crops

244 The principal crop of Sine-Saloum is the groundnut.
433 This plant is cultivated everywhere, but the best lands are in Sine and north of the railroad. The lands of Bas-Saloum

/117 cont./

244 493 134 242 are much less suitable for this crop because of their composition which gives a certain acidity to the nuts, thus rendering them less suitable for industrial use in /118/ the production of fine oils. There have been attempts to correct this defect and to improve the quality of Bas-Saloum by means of seed selection and by the continued addition of seed from Sine; this has not yet been successful.

Fallow lands, however, are not lacking in the other regions of the circle.

There are 230,000 hectares planted in groundnuts. This figure represents 0.85 hectares per inhabitant. This is about 1/11 of the total area of the circle.

In 1914 this crop extended over 70,000 hectares. It has thus tripled.

The production, which was 75,000 tons in 1918, is about 140,000 tons today. It has doubled in 10 years. It amounts to almost a third of the harvest of Senegal.

One can determine the production of groundnuts in the circle since 1921 by the following figures (in tons):

Years	1921	1922	1923	1924
Tons	80,000	90,000	110,000	125,000
Years	1925	1926	1927	
Tons	135,000	145,000	140,000	

167 242 These results are due in part to the increase in the population by the influx of foreign workers into the circle, who came to settle there or who hire themselves out, and in part to the selection of seeds and their distribution in ever increasing quantities.

654 441 474 The credit for this work is to be given to the administration, the Société de Prevoyance /Welfare Society/, and the Chambre de Commerce of Kaolack, whose combined efforts have made it possible to achieve such a fine result.